Mathematics, Grade 5 – Scoring Guide
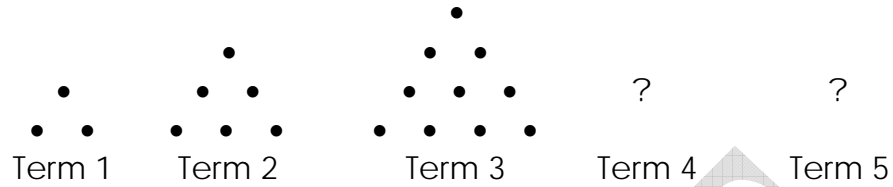
A1A5

According to the pattern shown in Terms 1, 2, and 3, how many dots will be in Term 5?

| | Term 1 | Term 2 | Term 3 | Term 4 | Term 5 |

A. 11

B. 15

C. 21 *

D. 23

A1A5

If the pyramid pattern continues, what will be the largest number in Row 6?

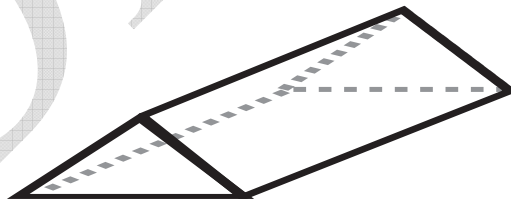| Row 1	1
Row 2	1 2 1
Row 3	1 2 3 2 1
Row 4	1 2 3 4 3 2 1
Row 5	1 2 3 4 5 4 3 2 1

A. 5

A. 6 *

B. 7

C. 12

A2B5

Jane has 2 pages of stamps like the one shown below. Which number sentence represents the total number of stamps on the two pages?
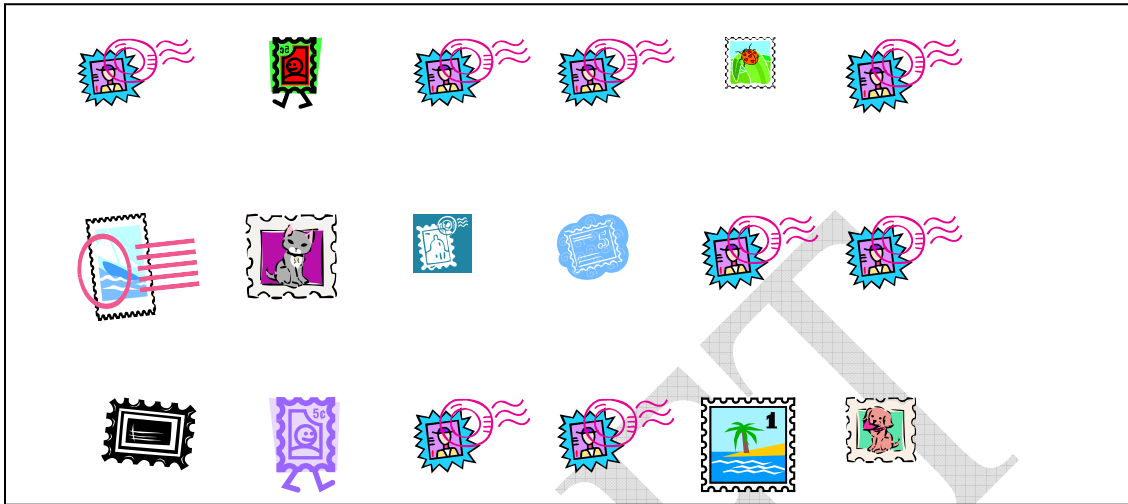
A. $6 + 3 \times 2$

B. $2(3 \times 6)$ *

C. $(6 \times 4) + 3$

D. $3 \times 6 + 3$

G1A5

How many rectangular **faces** does this shape have?
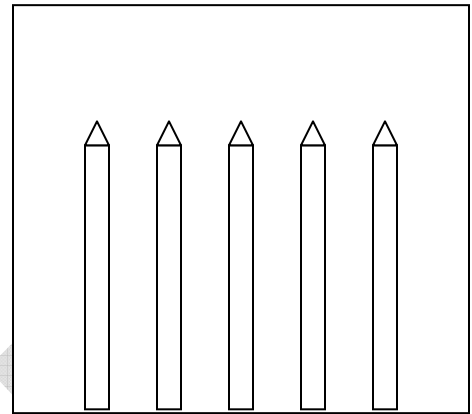

A. 1

B. 2

C. 3 *

D. 5

A2A5
Which number sentence represents the cost of 1 marker (M)?

Box of Markers = $1.50

A. M × $1.50 = $0.30

B. $1.50 ÷ 5 = M *

C. M + $0.30 = $1.50

D. $1.50 × 5 = M

A2A5
Find the equivalent expression for:

$$4(3 + 2)$$

A. $(3 + 2) × (3 + 2) × 2$

B. $12 + (3 + 2)$

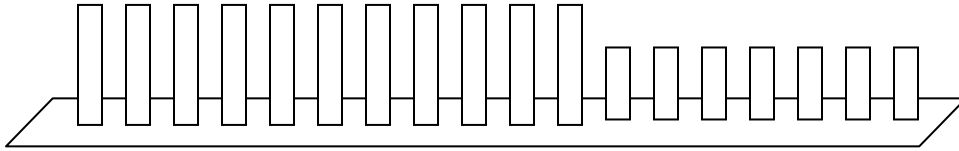C. $(4 × 3) + (4 × 2)$ *

D. $(4 + 3) × (4 + 2)$

G1A5
What shape do all of these prisms have as a face?

A. triangle

B. rectangle*

C. trapezoid

D. hexagon

A3A5

There are tall books and short books on a shelf.

What is the fewest number of books you could remove from the shelf so that twice as many tall books as short books remain?

    A.   1

    B.   2

    C.   3 *

    D.   4

G1A5

This figure has how many triangular faces?

    A.   2

    B.   3

    C.   4 *

    D.   5

A1A5
Which rule describes this pattern?

2, 3, 5, 9, 17, . . .

  A. the number plus 1

  B. 2 times the number, subtract 1 *

  C. 2 times the number, plus 1

  D. the number plus 2

A1A5, A2A5
Write the next number in the pattern on the blank:

5, 15, 45, 135, _____

Write the rule that shows how to find the next number in the pattern.

Exemplary response: The next term is 405; expressions include 3x, 135 x 3, times three, etc.
Scoring guide:
  2 points – Correctly extends the pattern **and** gives a correct expression
  1 point – Correctly extends the pattern **or** gives a correct expression.
  0 points – Other

A2A5

Susan's mother bought 4 boxes of ice cream bars for her to take to school on her birthday. Susan gave one ice cream bar each to each of the two secretaries, one to her principal, and one to her teacher. Then she had 28 bars left.

Write a number sentence to find how many ice cream bars Susan brought to school.

<u>Exemplary response: $n = (28 + 4) \div 4$; $n = 8 + 8 + 8 + 8$; etc.</u>

How many ice cream bars were in each box when Susan's mother bought them?

<u>   8   </u> ice cream bars

Scoring guide:
> 2 points – Correct number sentence **and** correct answer of 8
> 1 point – Correct number sentence **or** answer
> 0 points – Other.

A2A5

Annie owns 5 apple orchards. Each orchard has 6 rows of apple trees with 3 trees in each row. Draw a diagram and write an expression to show how many apple trees Annie has in all.

Show your work inside this box.

Expression: _____

Exemplary response – diagram showing a 5 x 6 x 3 arrangement **and** a correct expression (6 x 3 x 5 , or 3 x 5 x 6 , or 5 x 3 x 6 or 6 x 5 x 3)
Scoring guide:

      2 points – Correct diagram **and** expression
      1 point – Correct diagram **or** expression
      0 points – Other.

A1B5

Look for a pattern in these figures of hearts.

Figure 1   Figure 2   Figure 3   Figure 4

If the pattern continues, which figure will have 21 hearts? Show how you got your answer.

Figure _____ will have 21 hearts.

Exemplary response: Figure 9 will have 21 hearts and a valid explanation (5 , 7, 9, 11, 13, 15, 17, 19, 21; figure number times 2 + 3; etc.)
Scoring guide:

      2 points – Correctly identities figure 9 **and** a valid explanation of how answer was
           determined.
      1 point – Correctly identities figure 9 **or** a valid explanation of how answer was
           determined.
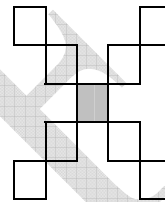   0 points – Other

A3A5

Pat's Tile Company was hired to build a patio that included some decorative tiles. Pat proposed the four designs shown below. The dark tile in the center is a special tile that costs more than the regular white tiles.
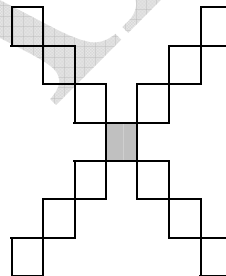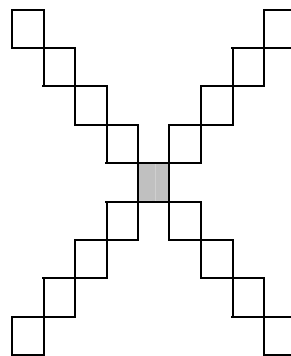
Design Number	Cost
1	$9
2	$13
3	$17
4	$21

If the pattern continues, how much would design 7 cost? Show your work in the box below.

Design 7 would cost: _____

Exemplary response: Design 7 would cost $33. The work should support the rule that the design cost is 4 times the number plus 5 or other valid explanation.

Scoring Guide:
   2 points-Design 7 costs $33 **and** valid work to support the answer
   1 point- Design 7 costs $33 **or** valid work to support the answer
   0 points-other